

GX350a

GeniSys™ Series w/ApexPlus™ Technology
(includes Drawknob series instruments)

Copyright © 2024 Allen Organ Company LLC
All Rights Reserved

ALLEN ORGAN COMPANY

Congratulations on the purchase of your new Allen Organ! You have acquired the most advanced electronic organ ever built, one that harnesses a sophisticated custom computer system to create and control beautiful organ sound.

Your organ technology is the culmination of decades of advancements in digital sound and control techniques by Allen Organ Company. This system represents the pinnacle of digital technology applied to exacting musical tasks. The result is a musical instrument of remarkably advanced tone quality and performance.

The GeniSys™ Reference Guide is available for download from the Allen Organ Company website at: <https://www.allenorgan.com/support/manuals-and-guides.html>. Enter this link into your browser and then click on the appropriate link to download the associated manual.

An online version of the GeniSys Display Operation guide is also available at: <https://www.allenorgan.com/genisys/index.html>.

Your Allen Organ Warranty should be completed using the online Warranty registration tool at: <https://www.allenorgan.com/warrantyreg/frmregwarranty.html>. Please complete all required fields and click the link at the bottom of the page to submit the warranty registration.

***Note:** All data entered, personal or otherwise, will not be shared or sold to any third party.*

Contents

I.	GENISYS™ DISPLAY.....	1
II.	ORGAN STOPS.....	1
III.	STOP CONTROLS.....	3
IV.	SPECIALIZED STOP CONTROLS.....	6
V.	GENISYS VOICES™ (<i>optional</i>).....	8
VI.	DIGITAL ZIMBELSTERN (<i>optional</i>).....	8
VII.	KEYBOARDS.....	8
VIII.	ILLUMINATED MUSIC RACK.....	9
IX.	LUMITECH™ CAPTURE.....	9
X.	EXPRESSION SHOES.....	9
XI.	SETTING CAPTURE REGISTRATIONS.....	9
XII.	REVERSIBLE PISTONS.....	11
XIII.	TUTTI I/II.....	11
XIV.	PISTON SEQUENCER.....	12
XV.	USB MEMORY PORT.....	12
XVI.	STOPLIST LIBRARY.....	12
XVII.	ARTISTIC REGISTRATION.....	13
XVIII.	TRANSPOSER.....	16
XIX.	ACOUSTIC PORTRAIT™.....	17
XX.	INSTALLATION, VOICING, AND CARE OF THE ORGAN.....	18
XXI.	SAFETY INFORMATION.....	19
	APPENDIX A: MIDI IMPLEMENTATION CHART.....	20
	APPENDIX B: HYMN PLAYER Song List.....	21
	APPENDIX C: GENISYS™ VOICES SOUND LIST.....	22
	APPENDIX D: VISUAL KEY RANGE CHART.....	24
	APPENDIX E: GNU PUBLIC LICENSE INFORMATION.....	25

I. GENISYS™ DISPLAY

GeniSys™ model GX350a contains a multi-function color touch screen display. GeniSys™ Display displays and controls a variety of features and functions which are accessed and changed just by touching the screen.

Please reference the online GeniSys™ Display tutorial which can be easily accessed using a personal computer (PC or MAC), tablet or Smart Phone (Android or iPhone) at: <http://www.allenorgan.com/genisys>

In addition, more in-depth descriptions about the features and functions within the GeniSys™ Display is available within the GeniSys™ Overview manual. Reference the Owner's Manual section within the Allen Organ website at: www.allenorgan.com



Important!: Only a light touch is needed to select the buttons on the GeniSys™ Display touch screen. Use only the tip or pad of your finger to touch the screen. Do NOT use any sharp objects such as fingernails, pencil/pen tip, etc. to touch the screen as this could scratch and irreparably damage the touch screen display.

II. ORGAN STOPS

PITCH FOOTAGE

The number appearing on each stop, along with its name, indicates the “pitch” or “register” of the particular stop. Organs can produce notes of different pitches from a single playing key. When this sound corresponds to the actual pitch of the played key, the stop is referred to as being of 8’ (eight foot) pitch; therefore, when an 8’ stop is selected and Middle C is depressed, the pitch heard is Middle C. If the sounds are an octave higher, it is called 4’ or octave pitch. If two octaves higher, it is called 2’ pitch. A stop sounding three octaves higher is at a 1’ pitch. Similarly, a 16’ stop sounds an octave lower and a 32’ stop two octaves lower.

Stops of 16’, 8’, 4’, 2’ and 1’ pitch all have octave relationships, that is, these whole numbered stops all sound at octaves of whatever key is depressed. Non-octave pitches are also used in organs. Their footage numbers contain a fraction and they are referred to as *Mutations*. Among these are the $2\text{-}2/3'$ *Nasard*, $1\text{-}3/5'$ *Tierce*, $1\text{-}1/3'$ *Quintflöte* and $2\text{-}2/3'$ *Twelfth*. Because they introduce unusual pitch relationships with respect to the 8’ tone, they are most effective when combined with other stops and used either in solo passages or in small ensembles of flutes.

TONAL FAMILIES

1. Flues

Organ tones divide into two main categories: *flues* and *reeds*. In pipe organs, flue pipes are those in which the sound is set in motion by wind striking directly on the edge of the mouth of the pipe. Flues include principal, flute and string tones. Compound stops and hybrid stops are variations within these three stop families.

The term “imitative” means that the organ stop imitates the sound of a corresponding orchestral instrument; for example, an imitative 8’ Viola stop sounds like an orchestral viola.

<u>Principal Voices</u> Principal, Diapason, Octave, Fifteenth, Quinte	Characteristic organ tones, not imitative of any orchestral instruments. Usually present at many pitches and in all divisions. Rich, warm and harmonically well developed.
<u>Flute Voices - <i>Open</i>:</u> Harmonic Flute, Koppelflöte, flute mutation stops <u>Flute Voices - <i>Stopped</i>:</u> Holzgedackt, Bourdon, Lieblichgedackt, Rohr Bourdon	Lesser harmonic development than Principals. Open flutes are somewhat imitative; stopped flutes are not. Present at all pitch levels and in all divisions.
<u>String Voices</u> Gamba, Salicional, Viole Céleste	Mildly imitative and brighter harmonic development than Principals. Usually appear at 8' first; can be 4' & 16' ranks.
<u>Compound Voices</u> Mixture, Fourniture	Voices produced by more than one rank sounding simultaneously. Best registered with other stops.
<u>Hybrid Voices</u> Erzähler, Spitzflöte	Voices that combine the tonal characteristic of two families of sound, e.g., flutes and principals, or strings and principals.

2. Reeds

In *reed* pipes, a metal tongue vibrates against an open flattened side of a metal tube called a shallot. The characteristic sounds of different reeds are produced through resonators of different shapes. The family of reeds subdivides as follows:

<u><i>Chorus or Ensemble:</i></u> Double Trumpet, Tromba, Posaune, Clarion, Bombarde <u><i>Solo:</i></u> Hautbois, Clarinet, Krummhorn	Voices of great harmonic development; some are imitative of their orchestral counterparts.
--	--

Your Allen Organ provides authentic, digitally sampled voices. They are protected by copyrights owned by the Allen Organ Company and are stored in memory devices, each having affixed to it a copyright notice; e. g., © 2003 AOCO, © 2001 AOCO, etc., pursuant to Title 17 of the United States Code, Section 101 et seq.

III. STOP CONTROLS

PEDAL ORGAN

Contra Violone 32'	String tone at 32' pitch. This stop is smooth and much less assertive rounding out the lower end of a string ensemble.
Diapason 16'	The 16' member of the Pedal Principal chorus. Strongest pedal flue stop.
Bourdon 16'	Stopped flute tone of weight and solidity.
Bourdon Doux 16' (Sw)	Softer stopped flute of delicacy and definition. Useful where a soft 16' pitch is required. <i>**Expressed with the Swell division.</i>
Violone 16' (Gt)	Mild string stop at 16' pitch that is slow in speech, giving an initial rasping effect which resembles the sound of a string being bowed. <i>**Expressed with the Great Division.</i>
Octave 8'	8' member of the Pedal Principal chorus.
Gedackt Flöte 8'	Stopped flute tone of 8' pitch, useful in adding clarity to a pedal line in combination with the Bourdon 16' or Bourdon Doux (Sw) 16'.
Choralbass 4'	Pedal 4' principal tone.
Flute 4'	Open flute tone at 4' pitch.
Mixture IV	Compound stop of Principal tones. One pedal produces four distinct pitches at octave and fifth relationships to the pedal being pressed. Used to crown the Pedal Principal chorus.
Contre Bombarde 32'	Powerful, loud and brilliant reed which adds "snarl" to the Pedal division. Use with large combinations.
Bombarde 16'	A strong Pedal reed that lends strength and "snarl" to the Pedal line.
Contre Trompette 16' (Sw)	Chorus reed tone at the 16' pitch level, designed to supplement and under-gird the other chorus reeds. Also usable as a distinctive solo reed. <i>**Expressed with the Swell Division.</i>
Trumpet 8'	Chorus reed stop of rich harmonic development. Can also be used as a solo voice.
Clarion 4'	A bright chorus reed. Also usable as a solo voice.

SWELL ORGAN

Geigen Diapason 8'	A diapason/string hybrid type tone that is more diapason than string and blends well with other stops.
Rohr Bourdon 8'	Stopped "chiffy" flute tone of moderate harmonic development. The 8' member of the Swell Flute chorus. Useful by itself or with other flutes and mutations in creating solo voices.
Viola Pomposa 8'	Full bodied string tone with good harmonic development.
Viola Celeste 8'	String tone, slightly detuned, used with the Viola Pomposa 8' to create a warm String celeste.
Flute Celeste II 8'	Two soft flute sounds, one slightly detuned from the other to create a warm, shimmering sound.
Octave Geigen 4'	Bright 4' Principal tone.

Traverse Flute 4'	Distinctive flute voice that works well in ensembles of flutes or strings, or as a solo voice.
Nasard 2-2/3'	Flute mutation that sounds one octave and a fifth above the keys played. Always used with other stops (usually beginning with 8') for coloration.
Piccolo 2'	A delicate, clear open flute at 2' pitch.
Tierce 1-3/5'	Flute mutation that sounds a seventeenth (two octaves and a third) above the keys played. Use mainly with 8' stops or flute ensembles.
Fourniture IV	Compound stop, or mixture comprised of Principal tones. Each note played produces four distinct pitches at octave and fifth relationships to the key being pressed. The mixture should never be used without stops of lower pitches. The Fourniture IV is typically added to Diapason or Flute ensembles, or to a reed chorus.
Contre Trompette 16'	Chorus reed tone at the 16' pitch level, designed to supplement the other chorus reeds.
Trompette 8'	Chorus reed stop of rich harmonic development. Can also be used as a solo voice.
Oboe 8'	Solo reed with a pungent nasal timbre.
Vox Humana 8'	Soft nasal reed with Tremulant intended to imitate the human singing voice.
Clairon 4'	A bright chorus reed. Also usable as a solo voice.
Celesta	Sound similar to that of a Glockenspiel, but with a much softer and subtle timbre.

SWELL SOLO VOICES

In addition to the comprehensive stop specification of the GX350a, the Swell division contains several Solo style stops that can be played on the Swell manual when the *Swell Solo Voices On* stop control is turned on. The Solo voice stop names are engraved on the stop controls in blue superscript as follows: *Orchestral Flute 4*, *Clarinet 8*, *French Horn 8* and *Cor Anglais*. When the *Swell Solo Voices On* stop control is turned "on", the voices engraved in blue on the stop controls override the main voice in the larger engraving. These stops are meant to mimic those sounds of the Orchestral instruments instead of the more traditional pipe organ sounds.

GREAT ORGAN

Violone 16'	Mild string stop at 16' pitch that is slow in speech, giving an initial rasping effect which resembles the sound of a string being bowed.
Diapason 8'	Foundation stop of the Great Principal chorus.
Harmonic Flute 8'	Open flute of considerable harmonic development. An excellent solo stop.
Gamba 8'	Open metal medium scale 8' string tone. Moderately loud, clear and brilliant.
Bourdon 8'	Full-bodied, partially stopped flute tone.
Octave 4'	The 4' member of the Great Principal chorus.

Flute 4'	Partially stopped 4' flute tone. Usually classified as a flute/string hybrid stop that is both a bit reedy and breathy.
Fifteenth 2'	An open metal stop that produces foundation tone at the 2' pitch level. Also the 2' member of the Great Principal chorus.
Twelfth 2-2/3'	Principal mutation that sounds an octave and a fifth above the keys played. Used with other stops (usually beginning with 8') for coloration.
Cymbale III	Compound stop of principal tones. One key produces three distinct pitches at octave and fifth relationships to the key being pressed. The Cymbale III should never be used without stops of lower pitches. It is typically added to Diapason or Flute ensembles after the Mixture IV.
Mixture IV	A compound stop of principal tones. Four notes in octave and fifth relationships sound together when a single key is depressed. As pitches progress upward, they "break" back to the next lower octave or fifth. Used to cap the Great principal chorus, adding brilliance and pitch definition throughout the entire compass.
Tromba 8'	Chorus reed stop of rich harmonic development. Can also be used as a solo voice.
Chimes	Typical Tubular Chimes.

CHOIR ORGAN

Erzähler 16'	Hybrid stop at 16' pitch that combines the tonal characteristics of the string and flute families, resulting in a small-scale Gemshorn.
Principal 8	Flue type foundation stop with a good tonal back-bone.
Erzähler 8'	Hybrid stop that combines the tonal characteristics of the string and flute families, resulting in a small-scale Gemshorn.
Erzähler Celeste 8'	Like the Erzähler 8', but slightly detuned to create a warm celeste.
Holz Gedackt 8'	A stopped wood flute with pronounced chuff. Excellent for Baroque and Classical music.
Octave 4'	Bright classical Principal.
Koppelflöte 4'	Distinctive stopped flute voice that works well in ensembles of flutes or strings, or as a solo voice.
Erzähler Celeste II 4'	Two hybrid stops at 4' pitch, one slightly detuned from the other that combines the tonal characteristics of both the string and flute families.
Super Octave 2'	An open metal stop that produces foundation tone at the 2' pitch.
Quintflöte 1-1/3'	Open flute mutation that causes the pitch to sound a nineteenth (two octaves and a fifth) higher than played. Used with 8' stops or flute ensembles.
Mixture III	Compound stop of principal tones. One key produces three distinct pitches at octave and fifth relationships to the key being pressed. The Zimbel III should never be used without stops of lower pitches. It is typically added to Diapason or Flute ensembles after the Mixture IV.

Krummhorn 8'	The tone quality of the shawm, a medieval ancestor of the clarinet, is the basis for this light, bright, nasal reed. It can be used alone as a solo or combined with light flues for a somewhat rounder reed solo effect.
Festival Trumpet 8'	Very bright, fiery and edgy reed. Useful as a large ensemble reed or as a solo stop.

IV. SPECIALIZED STOP CONTROLS

Some organ stop controls do not turn voices on/off, but instead turn on/off console functions such as outlined in this Section.

Great To Pedal 8'	Connects all Great stops to the Pedal at Unison pitch.
Swell To Pedal 8'	Connects all Swell stops to the Pedal at Unison pitch.
Swell To Pedal 4'	Connects all Swell stops to the Pedal at 4' pitch.
Choir To Pedal 8'	Connects all Choir stops to the Pedal at Unison pitch.
Swell To Great 16'	Intermanual sub-coupler connecting all Swell stops to the Great manual at 16' pitch.
Swell To Great 8'	Intermanual coupler connecting all Swell stops to the Great manual at Unison pitch.
Swell To Great 4'	Intermanual super-coupler connecting all Swell stops to the Great manual at 4' pitch.
Choir To Great 8'	Intermanual coupler connecting all Choir stops to the Great manual at Unison pitch.
Swell To Choir 16'	Intermanual sub-coupler connecting all Swell stops to the Choir manual at 16' pitch.
Swell To Choir 8'	Intermanual coupler connecting all Swell stops to the Choir manual at Unison pitch.
Swell To Choir 4'	Intermanual super-coupler connecting all Swell stops to the Choir manual at 4' pitch.
Unison Off (Swell)	Turns off stops only within the Swell Division at unison pitch. Note: Stops coupled into the Swell from other divisions will play from the Swell manual at unison pitch. Also, Swell Division stops coupled to other manuals or the pedalboard will play at unison pitch.
Swell 16'	Swell sub-octave coupler.
Swell 4'	Swell super-octave coupler.
Choir Unison Off	Turns off stops only within the Choir Division at unison pitch. Note: Stops coupled into the Choir from other divisions will play from the Swell manual at unison pitch. Also, Choir Division stops coupled to other manuals or the pedalboard will play at unison pitch.
Gt-Pd Unenclosed	When turned on, the Great-Choir-Pedal expression shoe will express only the Choir Divisions as the expression control for the Great-Pedal Division is disabled, causing the Great-Pedal stops to sound at full volume, regardless of the position of the Great-Choir-Pedal expression shoe.

Choir Unenclosed	When turned on, the Great-Choir-Pedal expression shoe will express only the Great and Pedal Divisions as the expression control for the Choir Division is disabled, causing the Choir stops to sound at full volume, regardless of the position of the Great-Choir-Pedal expression shoe.
MIDI On Pedal	Opens MIDI channel to the Pedal.
MIDI On Swell	Opens MIDI channel to the Swell
MIDI On Great	Opens MIDI channel to the Great.
MIDI On Choir	Opens MIDI channel to the Choir.
Tremulant (Swell, Great, Choir)	This stop provides a vibrato effect, natural in the human voice and wind instruments.
Tremulants Full	When activated with one or more of the organ's tremulants, it causes the tremulants to become much deeper than normal classical tremulants. Very useful for Gospel music. Also known as "Vibrato."
Melody Coupler (Ch>Gt)	When playing on the Great manual, the highest key played on the Great will automatically play all stops drawn on the Choir, in addition to those drawn on the Great. By choosing a Choir stop, such as the Krummhorn 8' or Festival Trumpet 8', the melody played by the top note on the Great is accentuated.
Bass Coupler	Similar to the Melody coupler, however, in this case the lowest note played on the Great will also play all stops drawn in the Pedal Division. This allows voices normally played from the pedalboard to be heard without using the pedalboard.
Alternate Tuning	When activated, the organ's tuning will change to the alternate tuning selected from within the GeniSys™ Display. See the GeniSys™ Display tutorial for more information relating to Alternate Tunings.
Manual Transfer (Ch>Gt)	Exchanges stops and Divisional Pistons in the Great and Choir Divisions so the stops from the Great Division are played from the bottom Choir Manual and the stops from the Choir Division are played from the Great manual.

STOP CONTROL PISTONS

Stop control pistons are special pistons that act just like traditional stop controls, but are “toggled” on and off by pressing the associated piston button. An LED indicator usually located next to the piston button indicates whether the function engraved on the piston is turned on or off. The CANCEL piston button will turn off the stop pistons just like the traditional stop controls. Stop pistons can also be programmed to capture registrations.

Swell Mains Off Used in conjunction with the Swell To Antiphonal and Gt-Ch-Pd To Antiphonal stop pistons. This stop piston disables the Swell Main speakers.

Swell To Ant(iphonal) Causes the organ to speak from the Swell Antiphonal speakers. The organ will speak from both the Swell Antiphonal and Main divisions unless the Swell Mains Off stop piston is also turned on.

Gt-Ch-Pd Mains Off Used in conjunction with the Swell To Antiphonal and Gt-Ch-Pd To Antiphonal stop pistons. This stop piston disables the Gt-Ch-Pd Main speakers.

Gt-Ch-Pd To Ant(iphonal) Causes the organ to speak from the Gt-Ch-Pd Antiphonal speakers. The organ will speak from both the Gt-Ch-Pd Antiphonal and Main divisions unless the Gt-Ch-Pd Main Off stop piston is also turned on.

V. GENISYS VOICES™ *(optional)*

GeniSys™ Voices is a set of over 260 classical and contemporary style voices, including eight drum kits and various special effect voices, which can be assigned and activated by designated stop controls within each division of the organ. Each division can contain up to two GeniSys™ Voice stop controls. The stop controls are programmed within the multi-function GeniSys™ Display and those voices assigned may be easily viewed at any time. In addition to selecting a voice for a stop control's position, the voice's gain (volume), tuning, pitch and key range or split may also be adjusted.

All voice settings are retained when the organ is turned off. GeniSys™ Voices expands the organ's sound capabilities by offering literally dozens of many different and creative sound configurations. Programmed combinations is all dependent on the requirements of the music and the creativity of the organist.

GeniSys™ Voices can also couple between Divisions for even more versatility!

See the GeniSys™ Display tutorial for instructions on GeniSys™ Voices.

VI. DIGITAL ZIMBELSTERN *(optional)*

The GeniSys™ model GX350a offers a digital multi-bell Zimbelstern which may be activated by an optionally installed toe stud. In addition, an optional AC relay may be installed in lieu of the digital counterpart so a mechanical Zimbelstern may be used instead. Contact your local Allen Organ representative for more information about this optional feature. ***Mechanical Zimbelstern must be purchased and obtained locally.*

VII. KEYBOARDS

The GeniSys™ model GX350a utilizes industry standard keyboards with velocity sensitivity for the best economical alternative option in playability and control. **Note:** Velocity sensitivity cannot be disabled.

Optional deluxe series Allen keyboards offer a better feel utilizing a traditional wooden key action as well as the ability to adjust the key tension.

VIII. ILLUMINATED MUSIC RACK

Using advanced LED technology, the organ's music rack produces a light that is soft and even yet bright enough to view printed music at various angles as well as being cool to the touch. As a bonus, the underside of the music rack desk allows the light to illuminate the organ's keyboards. An integrated dimmer control has been incorporated into the side of the music rack desk which allows the organist to continuously adjust the overall light intensity smoothly over the range of the dimmer control. For convenience, the music rack light will automatically turn "on" with the organ's power switch.

IX. LUMITECH™ CAPTURE

State-of-the-art LED technology is incorporated into Allen's exclusive Lumitech Capture System. LED's not only require less power, but last about 10-times longer than incandescent bulbs for the ultimate in reliability. Manually pressing the upper or lower portion of a Lumitech stop control will "toggle" the on or off status of the stop. When the stop is lit, the labeled function of the stop control is activated. The "Self Check" feature within the GeniSys™ Display can be performed at any time to test the organ's capture system as well as the LED indicators.

Allen's optional deluxe moving capture system utilizes mechanical drawknob and rockertab stop controls which offer a more traditional look and feel similar to that of a real pipe organ console.

X. EXPRESSION SHOES

The organ's control pedals (called "shoes") control expression and Crescendo.

- ❑ The left shoe expresses the Great, Choir and Pedal Divisions.
- ❑ The middle shoe expresses the Swell Division.
- ❑ The right-most shoe is the Crescendo shoe. It is a master Crescendo for all divisions. It gradually adds stops as it is opened/depressed. Sequential green, yellow and red lights on the GeniSys™ Display illustrates relative pedal position. Indiscriminate use of the Crescendo, in lieu of careful registration, should be avoided.

The Crescendo B thumb piston is associated with the Crescendo shoe. Crescendo B accesses a second set of Crescendo registrations that can be different from the standard Crescendo registrations. See the GeniSys™ Display tutorial about accessing the Crescendo B programming section.

XI. SETTING CAPTURE REGISTRATIONS

Your Allen organ's capture system lets the organist set stop registrations within each of its available capture memories. The GeniSys™ GX350a model contains a set of General pistons, located under the left side of the Swell and Great manuals, as well as a set of Divisional pistons for each manual division centrally located under both the Swell, Great and Choir manuals. There is also a set of six (6) toe studs, located to the right of the organ's Crescendo shoe for the Pedal division. As a convenience to the organist, a set of ten (10) General division toe studs are located to the left of the organ's Great-Choir-Pedal Expression shoe. The General toe studs, when pressed, will activate the same stop registration programmed on the same number General piston.

In addition, two (2) Tutti toe studs are also included to the far right side of the Crescendo shoe. The Tutti toe studs are duplicates of the manual Tutti pistons. As a convenience, the GeniSys™ Display will indicate the last piston pressed underneath the expression/crescendo bar graph displays.

SETTING GENERAL PISTONS

General pistons will affect all stops in any division. Any stop turned on will be set within a General piston registration. To set a General piston:

- ❑ First, turn on any stops you wish to save within a registration.
- ❑ Press and hold the **SET** Piston.
- ❑ Press and release the desired GENERAL piston.
- ❑ Finally, release the **SET** Piston.

Note: *General pistons are customarily set from soft to loud using graduated stop combinations.*

SETTING DIVISIONAL PISTONS

Divisional pistons are different in that they only affect the stops of a single division. For example, only the Swell stops can be programmed onto a Swell divisional piston. Any Great stops turned on while selecting or setting a Swell divisional piston will be unaffected or changed. To set a Divisional piston:

- ❑ First, only turn on stops within a single division you wish to save within a registration.
- ❑ Press and hold the **SET** Piston.
- ❑ Press and release the desired DIVISIONAL piston.
- ❑ Finally, release the **SET** Piston.

The pistons, General or Divisional, which have been set “remember” the registrations which have been assigned to each of them. Each time a given piston is pressed, the registration assigned to it is activated. Stop registrations may be changed at any time by repeating the above procedures.

SETTING TOE PISTONS (STUDS)

Stop registration combinations may be set and drawn by toe studs, as well as by pistons. Toe studs, located on each side of the Expression and Crescendo shoes, are set in the same manner as thumb pistons. The toe studs on the left are duplicates of General pistons. The toe studs on the right are Pedal Divisional toe studs.

To set a Pedal Divisional Toe Stud...

- ❑ Select the desired Pedal stops.
- ❑ Hold the SET button, and momentarily press the desired Pedal toe stud.
- ❑ Finally, release the SET button.

When you set a General Piston, that combination is set automatically on the toe stud of the same number. That is, setting General Piston #8 also places its combination on General toe stud #8.

RECALL “R” PISTON

The “R” or Recall piston recalls the last registration setting prior to using any General or Divisional piston. For example;

- ❑ Press a General or Divisional piston/toe stud. The stop registration programmed on that particular piston/toe stud will appear.
- ❑ Manually register additional stops to the current stop registration.
- ❑ Now, press a different General or Divisional piston/toe stud. The stop registration programmed on that particular piston/toe stud will appear.
- ❑ Press the “R” piston. The previous stop registration, including those stops registered manually, will re-appear.

What happens is the capture system takes a “snapshot” of the current stop registration and stores it within the Recall piston memory before it actually changes to the new stop registration selected. Then, when the “R” piston is pressed, the capture system “recalls” the previous registration stored before the last piston/toe stud selection was made.

XII. REVERSIBLE PISTONS

The GeniSys™ model GX350a is equipped with several Reversible pistons for the intermanual coupler stops. Reversible pistons, when pressed, toggle the state of a coupler stop. For example, if the coupler stop is turned off, pressing the associated Reversible piston for that stop will turn the stop on. The same is true in reverse, if the coupler stop is turned on, pressing the associated Reversible piston for that stop will turn the stop off.

XIII. TUTTI I/II

The Tutti I and II pistons are sets for full organ registrations. Tutti II has a larger, louder registration than Tutti I. The Tuttis are turned on and off by the pressing piston buttons labeled TUTTI I or TUTTI II. The pistons are “toggled” meaning that pressing them a second time reverses the ON or OFF setting of the corresponding Tutti. Only one Tutti can be turned ON at a time. Pressing the other Tutti piston that is not turned ON will turn OFF the Tutti that was ON and turn ON the Tutti that was OFF. The *Cancel* piston button will turn OFF the Tuttis.

The GeniSys™ Display will indicate when either Tutti has been selected. A second set of Tuttis can be programmed by the organist. Like the Crescendo, indiscriminate use of Tuttis should be avoided. See the GeniSys™ Display tutorial (mentioned later in this manual) for accessing the Crescendo B programming section.

XIV. PISTON SEQUENCER

The GeniSys™ model GX350a includes a multi-function Piston Sequencer. The Piston Sequencer allows the organist to step through a sequence of programmed registrations using the “NEXT” and “PREV” piston buttons. There are four modes of operation available:

OFF: The Piston Sequencer is disabled. The “Next” and “Prev” pistons/toe studs will not function.

SIMPLE STEPPER: This mode allows the organist to step sequentially through the available General pistons of a single capture memory level.

ADVANCED STEPPER: This mode allows the organist to step sequentially through the available General pistons of all capture memory levels.

CUSTOM: This mode allows the organist to sequentially step through a user programmed piston sequence of any available piston and capture memory level. Piston Sequence memory allows 512 steps allocated to a maximum of 99 sequences. See the GeniSys™ Display tutorial (mentioned later in this manual) for accessing the Piston Sequencer programming section.

XV. USB MEMORY PORT

GeniSys™ model organs contain a USB memory port for a USB memory device. A variety of data is stored on the USB memory device that the organ uses for various functions. The factory supplied USB memory device is formatted to contain the pre-programmed MIDI files used for both the Hymn Player and Performance Player as well as the factory preset registration settings for GeniSys™ Voices.

The USB memory device also contains a sub-directory called “\work”. This sub-directory is required for the Recorder feature as this is the location of where the user-recorded MIDI files are stored. Hundreds of user-recorded MIDI songs can be recorded on the factory supplied USB memory device without exceeding the available memory on the USB memory device. However, if a non-factory USB memory device is used, then the “\work” directory needs to be created on the USB memory device or the Recorder function will not operate correctly.

Note: If a non-factory USB memory device is used, the Hymn Player, Performance Player features will be disabled and the GeniSys™ Voices factory preset files will not be available.

XVI. STOPLIST LIBRARY

GeniSys™ model GX350a contains six (6) Classical voicing suites as standard stop lists.

The standard model includes: Classic Allen, English, Cavaillé Coll, Schlicker, Arp Schnitger and Aeolian-Skinner.

Voicing suites are selected using the GeniSys™ Display. See the GeniSys™ Display tutorial about accessing and changing the current Stoplevel Library.

XVII. ARTISTIC REGISTRATION

(Trained organists might not need to review this section.)

Organ registrations fall into two broad categories; *solo combinations* and *ensembles*. A solo combination is one in which a melody is played on one keyboard, the accompaniment on another keyboard. The pedal often provides a light bass line. Almost any stop or combination of stops will sound good as a solo voice. A contrasting tone quality should be chosen for the accompaniment, so that the accompaniment is softer than the solo voice. The Pedal stops must provide a foundation for the solo and accompaniment without covering them.

Most 8' reed stops make interesting solo voices. The addition of a 4' flute or a flute mutation (e.g., Nasard or Tierce) to a reed such as the Trompette colors the sound further and increases its volume slightly. Adding an 8' flute to a reed adds body to the sound.

Flutes can be used alone or in combinations as solo voices. One special combination of flutes that creates an appealing and historically significant solo combination is the Cornet (pronounced kor-NAY). The Cornet is created by using the following Swell stops: Gedackt 8', Traverse Flute 4', Nasard 2-2/3', Piccolo 2' and Tierce 1-3/5'. This solo combination, widely used for Baroque organ music, is just as appropriate for some modern music. Useful variations of the Cornet may be achieved by eliminating the 4', the 2', or even both.

When choosing stops for a solo voice, it is not always necessary to include an 8' stop; for example, since the 4' flute has a tone quality different from that of the 8' flute, the 4' flute can be used as an independent solo voice. By playing a solo voice an octave lower than written, the notes sound at the correct pitch. In similar fashion, a 16' stop can be selected and the notes played an octave higher than written. Tonal variety is gained, because each stop has its own tone color. For accompaniment, the most desirable voices are the 8' flutes or strings on each manual. Celestes often make effective accompaniments. The correct choice depends on the volume of the solo tone (a soft solo voice requires the softest accompaniment stop), the element of contrast, and the location of the solo stop. A bright, harmonically rich solo reed, for example, can be accompanied by either a string or flute, though the flute often contributes greater interest because of its greater contrast. Try to seek a "natural" balance of volume between solo and accompaniment.

SUGGESTED SOLO REGISTRATIONS

CHIMES SOLO

Swell: Rohr Bourdon 8' or Viole Pomposa 8', Viole Celeste 8'
Great: Chimes
Choir: Erzähler 8', Erzähler Celeste 8'
Pedal: Bourdon Doux (Sw) 16', Swell to Pedal 8'
Play solo on Great and accompaniment on Swell or Choir

OBOE SOLO

Swell: Oboe 8'
Choir: Erzähler 8', Erzähler Celeste 8'
Pedal: Bourdon Doux (Sw) 16', Choir to Pedal 8'
Play solo on Swell and accompaniment on Choir

SOLO CORNET COMBINATION

Swell: Rohr Bourdon 8', Traverse Flute 4', Nasard 2-2/3', Piccolo 2', Tierce 1-3/5'
Great: Harmonic Flute 8'
Choir: Holz Gedackt 8'
Pedal: Bourdon Doux (Sw) 16', Gedackt 8'

Play solo melody on Swell and accompaniment on Great or Choir

TRUMPET SOLO

Swell: Rohr Bourdon 8', Traverse Flute 4', Nasard 2-2/3', Piccolo 2', Tierce 1-3/5',
*Tremulant
Great: Diapason 8', Octave 4', Fifteenth 2', Swell To Great 8'
Choir: Festival Trumpet 8'
Pedal: Diapason 16', Octave 8', Choralbass 4', Mixture IV

Play melody on Choir and accompaniment on Great.

**Tremulant optional on Swell.*

These few combinations demonstrate basic techniques of solo registration. In creating registrations of your own, remember these three simple rules:

- ❑ Seek tonal contrast between solo and accompaniment.
- ❑ Be sure the solo is louder than the accompaniment.
- ❑ Choose a solo whose character is appropriate to the specific piece.

ENSEMBLE REGISTRATIONS

Volumes have been written on the subject of ensemble registration. Following is a summary of the major points.

- Ensemble registrations involve groups of stops that are played together, usually, but not always, with both hands on one keyboard. They are characterized by compatibility of tone, clarity, and occasionally power. Such registrations are used in hymn singing, choir accompaniments, and much of the contrapuntal organ literature.
- Two factors are always to be considered: tone quality and pitch. Ensembles begin with a few stops at the 8' and/or 4' pitch and expand "outward" in pitch as they build up. New pitches are usually added in preference to another 8' stop. Ensembles are generally divided into three tonal groupings called "choruses":

The Principal Chorus is the most fully developed with representation in various divisions of the organ and at every pitch from 16' to high mixtures. The Principal Chorus is sometimes called the narrow-scale flue chorus, a reference to the relative thinness of Principal pipes in relation to their length.

The Flute Chorus is also well represented with a diversity of stops at various pitches. Generally speaking, the Flute Chorus is composed of less harmonically developed tones, and is smoother and of lesser volume than the Principal Chorus. The Flute Chorus is sometimes called the wide-scale flue chorus, owing to the generally "fatter" look of Flute pipes as compared to Principals.

The Reed Chorus includes those reed tones designed to be used in the ensemble buildup. Not all reed voices are ensemble tones. A Clarinet, for example, is usually a solo stop. The various Trumpets, Clairons, Bassons, etc., are usually ensemble voices that add brilliance, power, and incisiveness to the sound. If you have questions as to whether a specific reed is a solo or ensemble stop, refer to the stop list in the preceding section.

The Swell Reed Chorus is a special ensemble of Basson 16' and Trompette 8'. It represents an entity important to French organ music and the full ensemble of the organ. These stops create a "blaze" of richly harmonic sounds that tops off both flue choruses.

Another special ensemble combination important in French music is the **Cornet** (described in the section on Solo Registration). This combination can be used with the chorus reeds and mutations to create the "Grand Jeu." The Cornet is also useful in Romantic ensembles, adding weight and thickness to the sound.

SUGGESTED ENSEMBLE COMBINATION REGISTRATIONS:

GREAT ENSEMBLE COMBINATIONS

1. Harmonic Flute 8', Flute 4'
2. Harmonic Flute 8', Flute 4', Fifteenth 2'
3. Diapason 8', Octave 4'
4. Diapason 8', Octave 4', Fifteenth 2'
5. Diapason 8', Octave 4', Fifteenth 2', Mixture IV
6. Diapason 8', Harmonic Flute 8', Octave 4', Flute 4', Fifteenth 2', Mixture IV

SWELL ENSEMBLE COMBINATIONS

1. Rohr Bourdon 8', Viole Pomposa 8'
2. Rohr Bourdon 8', Viole Pomposa 8', Traverse Flute 4'
3. Rohr Bourdon 8', Viole Pomposa 8', Traverse Flute 4', Piccolo 2'
4. Rohr Bourdon 8', Viole Pomposa 8', Traverse Flute 4', Piccolo 2'
5. Rohr Bourdon 8', Viole Pomposa 8', Traverse Flute 4', Piccolo 2', Fourniture IV
6. Rohr Bourdon 8', Viole Pomposa 8', Traverse Flute 4', Piccolo 2', Fourniture IV, Trompette 8'

CHOIR ENSEMBLE COMBINATIONS

1. Holz Gedackt 8', Erzähler 8', Erzähler Celeste 8'
2. Holz Gedackt 8', Koppelflöte 4'
3. Holz Gedackt 8', Koppelflöte 4', Octave 4'
4. Holz Gedackt 8', Koppelflöte 4', Octave 4', Super Octave 2'
5. Holz Gedackt 8', Koppelflöte 4', Octave 4', Super Octave 2', Mixture III
6. Holz Gedackt 8', Koppelflöte 4', Octave 4', Super Octave 2', Mixture III, Quintflöte 1-1/3'

The use of the Swell to Great and Choir to Great coupler allows these separate ensembles to be combined on the Great manual. It is also possible to combine some of these ensembles within the same division; for example, when the #5 Great and #3 Swell registrations are coupled together and played on the Great, they combine to form a nice round hymn combination.

The Pedal ensemble is created in much the same way as the manual ensembles, starting at 16' pitch instead of 8'. Be careful that the volume of the pedals is not greater than that of the manuals. Although the manual to pedal couplers are useful in bringing clarity to the pedal line, especially on softer registrations, avoid the temptation to rely constantly on one or two 16' stops and a coupler. Please note that the softest stops and flute mutations are normally not used with ensembles.

FULL ORGAN

Due to the immense capabilities of the organ, every stop and coupler on the instrument could be used simultaneously without distortion, if the organ is adjusted properly. In good registration practice, however, the organist would not haphazardly put on every stop on the instrument. For best results, listen and include only those stops that really contribute to the fullness and brilliance of the ensemble. Eliminate soft stops and solo stops that make no purposeful contribution.

This short treatment barely scratches the surface of the fascinating subject of organ registration. For those interested in gaining further insight into this vital area of organ playing, we recommend the following texts:

Audsley, George Ashdown. *Organ Stops and their Artistic Registration*.

Hialeah, FL: C. P. P. Belwin, 1985.

Irwin, Stevens. *Dictionary of Pipe Organ Stops*. 2nd ed.

New York: Macmillan Books, 1983.

XVIII. TRANSPOSER

Vast computer capability makes it possible to perform the sometimes difficult task of transposing, while allowing the organist to play in the notated key. The GeniSys™ Display controls the operation of the Transposer.

Transposition to any of the twelve musical keys is possible. When the organ is turned ON, the Transposer defaults to the neutral or zero (0) position. The pitch can be raised a maximum of five half-steps or lowered a total of seven half-steps. Be aware that the Transposer's range settings "wrap around" from the plus five half-step setting to the minus seven half-step setting (or vice-versa).

The Transposer button within the GeniSys™ Display will change to a red color any time the Transposer setting is moved from the zero (0) or neutral pitch position.

Why Transpose?

- ❑ Because a song's range does not always suit the vocal range of a particular singer. By adjusting the Transposer, the piece can be sung more comfortably and effectively.
- ❑ Because some instruments are non-concert pitch. A trumpet in B^b, for example, can play the same music as the organist, if the Transposer knob is set two half steps lower.
- ❑ Because hymn singing can sometimes be improved by a more favorable key selection.

XIX. ACOUSTIC PORTRAIT™

Allen Organs are the only digital organs to bring the science of sampling to acoustics! Ordinary electronic reverb is a synthetic imitation of acoustics “applied to” the sound, not created as an integral part of it. Acoustic Portrait™ produces the real thing in exacting detail!

Acoustic Portrait™ begins with a sampling process using impulse responses that measure an actual room’s acoustic properties. These measurements are then stored in the organ's computer memory. Through an advanced real-time mathematical process called “convolution”, the acoustics of the sampled room actually become an integral part of the organ’s sound, producing a noticeably smoother, more natural result than synthetic reverb. Allen engineers have recorded the acoustics of cathedrals and other acoustically desirable buildings throughout the world. With advanced processors (DSP) and patented low-latency convolution algorithms, Acoustic Portrait™ reproduces the true acoustic response of each original room with stunning realism! Each organ equipped with Acoustic Portrait™ features 10 different Acoustic Portrait selections, ranging from intimate rooms to cavernous cathedrals.

Available Reverb Selections

1. Pipe Chamber
2. Small Theatre
3. Small Church
4. Medium Room 1
5. Medium Room 2
6. Medium Room 3
7. Large Room 1
8. Large Room 2
9. Cathedral
10. Large Cathedral

Acoustic Portrait is controlled within the GeniSys™ Display and must be turned ON to hear the selected reverb selection. The Acoustic Portrait™ selection as well as the gain (volume), measured in dB (decibels), can be accessed and adjusted within the GeniSys™ Display. See the GeniSys™ Display tutorial for instructions on the Acoustic Portrait™ adjustments.

XX. INSTALLATION, VOICING, AND CARE OF THE ORGAN

INSTALLATION

Wherever your organ may be situated, careful installation is a prerequisite to successful results. Your Allen representative is well qualified to guide you in planning the finest possible installation. Factory assistance in planning the installation is also available and may, in fact, be sought by your Allen Organ representative.

VOICING

Your organ presents unprecedented accuracy in the scaling and voicing of each note of every stop. Should any parameters be required to be changed, your Allen Organ representative is able to make such changes. Final adjustments in scaling and voicing involve procedures that are best left to an expert. These adjustments are normally part of the installation, and once completed, should not require changes. If the organ is moved to a new location or major changes are made to the acoustical properties of the room the organ resides in, the instrument may need to be tonally finished again.

CARE OF THE ORGAN

Your Allen Organ constitutes a major advance in long-term maintenance-free operation. There is no regular maintenance procedures required and, therefore, no periodic maintenance schedules to be observed.

Reasonable care will keep the instrument looking beautiful for years to come. The wood surfaces may be cleaned using a soft cloth dampened with lukewarm water. A mild solution of lukewarm water and dish detergent may be used to remove fingerprints, etc. Polish dry with a soft cloth. Do not use wax, sprays or oils on the finish. Satin finished surfaces will take on a semi-gloss appearance when waxed and will eventually become yellowed.

Keys and stop tablets should be cleaned in the following manner: Use two clean cloths. Immerse one in clear, lukewarm water and wring it thoroughly damp dry. Loosen the dirt with this cloth, and then polish immediately with the dry cloth. Do not use soap or detergent on keys or stop tablets.

To polish the clear music rack, a furniture wax polish may be sprayed on a soft dry cloth and rubbed on the front of the music rack. Keep the wax off of the wood finishes. This will help keep the music rack clear.

You have purchased a remarkable organ that not only faithfully reproduces the organ traditions of the past but also anticipates the innovations of the future. Should you have questions that are not addressed in this manual, please do not hesitate to contact your local Allen Organ representative.

Welcome to the family of satisfied Allen Organ owners!

XXI. SAFETY INFORMATION

CAUTION

Never plug the instrument into any AC current source other than 110 to 120 volts, 50/60Hz alternating current (AC). **For installations outside of North America:** Do not plug the instrument into any AC current source other than that stated by the selling dealer.

A dedicated AC circuit with a minimum 20A circuit breaker is required for each of the organ's AC power cords. Each AC circuit must contain a verified grounded outlet for the proper operation and protection of the instrument. Proper polarity should be checked by a qualified technician with an AC circuit analyzer before connecting and turning on the organ.

Do not change the AC cable plug or remove the ground pin or use any device that bypasses the ground pin connection to the instrument. If there are questions or concerns about the electrical connection, consult a local electrician or power company.

In installations where circuit breakers are turned off between uses, for example, between worship services, the circuit breaker affecting the organ console AC power should have a guard installed to prevent it from accidentally being switched off.

Safety requires that all instructions and labels attached to the instrument be read and adhered to.

Warning: This equipment generates, uses, and can radiate radio frequency energy and may cause interference to radio communications. It has been type-tested and found to comply with the limits for a Class B Computing Device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. Should this equipment cause interference to radio communications, the user at his own expense will be required to take whatever measures may be necessary to correct the interference. Whether this equipment actually causes the interference to radio communications can be determined by turning the equipment off and on. The user is encouraged to attempt to correct the interference by one or more of the following measures:

1. Reorient the receiving antenna.
2. Relocate the organ with respect to the *receiver*.
3. Move the organ away from the receiver.
4. Plug the organ into a different electrical outlet, so the organ and receiver are on different branch circuits.
5. If necessary, the user should consult the dealer or an experienced radio technician for additional suggestions.

CE mark shows compliance with the EMC Directive.

APPENDIX A: MIDI IMPLEMENTATION CHART

FUNCTION		TRANSMITTED	RECEIVED
Basic Channel	Default	1 – 16	1 – 16
	Changed	1 – 16	1 – 16
Mode	Default	3	3
	Messages	X	X
	Altered	X	X
Note Number		O (1 – 127)	O (1 – 127)
Velocity	Note ON	9nH, v = 1 – 127	9nH, v = 1 – 127
	Note OFF	9nH, v = 0	9nH, v = 0
Aftertouch	Keys	X	X
	Channels	X	X
Pitch Bend		O	O
Control Change	0 (bank select)	O	X
	4 (foot controller) <i>(Crescendo)</i>	O	O
	6 (Data MSB)	O	O
	7 (volume)	O	O
	64 (sustain)	O	O
	66 (sostenuto)	O	O
	98 (NRPN: LSB)	O	O
99 (NRPN: MSB)	O	O	
Program Change		O (1 – 127)	O (1 – 127)
System Exclusive		O	O
System Common		X	X
System Real Time		X	X
Aux Messages		X	X

Mode 1: Omni On, Poly

Mode 3: Omni Off, Poly

Mode 2: Omni On, Mono

Mode 4: Omni Off, Mono

O: Yes

X: No

APPENDIX B: HYMN PLAYER Song List

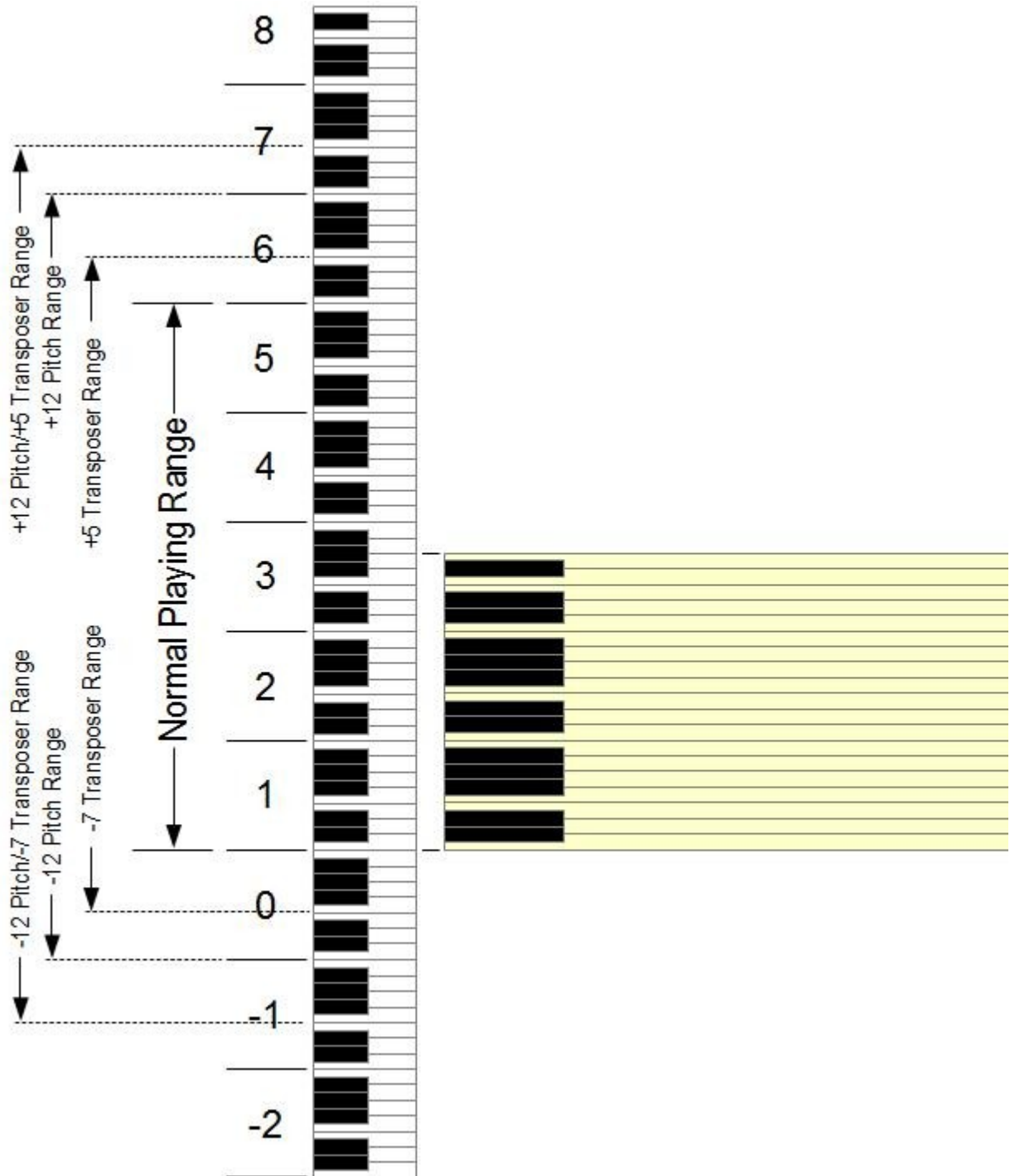
A Mighty Fortress	Fairest Lord Jesus	Lift Up Your Heads, Ye Mighty Gates	Spirit of God, Descend Upon My Heart
Abide with Me	Faith of Our Fathers	Lo, How a Rose E're Blooming	Stand Up and Bless the Lord
Ah! Holy Jesus	Fight the Good Fight	Lord, Speak to Me That I May Speak	Sweet Hour of Prayer
Alas! And Did My Savior Bleed	For All the Saints	Lord, Who Throughout These Forty Days	Take My Life
All Creatures of Our God and King	For the Beauty of the Earth	Love Divine, All Loves Excelling - A	The Church Is One Foundation
All Glory, Laud, and Honor	Glorious Things of Thee Are Spoken	Love Divine, All Loves Excelling - B	The Day of Resurrection!
All Hail the Power of Jesus' Name - A	Glory Be to the Father	More Love to Thee, O Christ	The First Noel
All Hail the Power of Jesus' Name - B	Go to Dark Gethsemane	Morning Has Broken	The King of Love My Shepherd Is
All People That on Earth Do Dwell	God of Grace and God of Glory	My Country, 'Tis of Thee	The Lord Is My Shepherd, I'll Not Want
All Praise to Thee, My God, This Night	God of the Ages, Whose Almighty Hand	My Hope Is Built on Nothing Less	The Old Rugged Cross
All Things Bright and Beautiful	God Rest You Merry, Gentlemen	Near to the Heart of God	The Strife Is O'er
Alleluia! Sing to Jesus!	God with Hidden Majesty	Now Thank We All Our God	Thine Is the Glory
Amazing Grace	Good Christian Men, Rejoice	Now The Day Is Over	This Is My Father's World
America	Guide Me, O Thou Great Jehovah	O Beautiful for Spacious Skies	To God Be the Glory
Angels from the Realms of Glory	Hark! The Herald Angels Sing	O Come and Sing Unto the Lord	To Jesus Christ Our Sovereign King
Angels We Have Heard on High	Holy God, We Praise Your Name	O Come, All ye Faithful	Wake, O Wake, and Sleep No Longer
As with Gladness Men of Old	Holy Spirit, Truth Divine	O Come, O Come Emmanuel	We Gather Together
At the Cross Her Station Keeping	Holy, Holy, Holy	O God, Our Help in Ages Past	We Give Thee but Thine Own
At the Lamb's High Feast We Sing	How Brightly Beams the Morning Star	O Jesus, I Have Promised	We Three Kings of Orient Are
Away in a Manger - A	How Firm A Foundation	O Little Town of Bethlehem	What Child Is This
Away in a Manger - B	How Great Thou Art	O Love That Wilt Not Let Me Go	What Wondrous Love Is This
Be Joyful , Mary	I Am the Bread of Life	O Master, Let Me Walk with Thee	When I Survey the Wondrous Cross - A
Be Thou My Vision	I Love Thy Kingdom, Lord	O Perfect Love	When I Survey the Wondrous Cross - B
Beneath the Cross of Jesus	I Sing A Song of the Saints of God	O Sacred Head Now Wounded	When in Our Music God Is Glorified
Beyond the Sunset	I Sing the Mighty Power of God	O Word of God Incarnate	When Morning Gilds the Skies
Blessed Assurance, Jesus is Mine!	Immortal, Invisible, God Only Wise	O Worship the King	Where Cross the Crowded Ways of Life
Blessed Jesus, at Your Word	In Christ There Is No East or West - A	O, for a Closer Walk with God - A	While Shepherds Watched Their Flocks - A
Blessing and Honor	In Christ There Is No East or West - B	O, for a Closer Walk with God - B	While Shepherds Watched Their Flocks - B
Blest Be the Tie That Binds	In the Cross of Christ I Glory	O, for a Thousand Tongues to Sing	Ye Servants of God, Your Master Proclaim
Break Thou the Bread of Life	In the Garden	On Jordan's Bank the Baptist's Cry	Ye Watchers and Ye Holy Ones
Breathe on Me, Breath of God	It Came upon a Midnight Clear	Open My Eyes That I May See	
Christ the Lord Is Risen Today	Jesus Christ Is Risen Today	Open Now Thy Gates of Beauty	
Come, Christians, Join to Sing	Jesus Loves Me!	Praise My Soul, the King of Heaven	
Come, Holy Spirit, Heavenly Dove	Jesus Shall Reign Where'er the Sun	Praise to the Lord, the Almighty	
Come, Thou Almighty King	Jesus, Lover of My Soul - A	Rejoice, the Lord Is King	
Come, Thou Fount of Every Blessing	Jesus, Lover of My Soul - B	Rejoice, Ye Pure In Heart	
Come, Thou Long-Expected Jesus - A	Jesus, Priceless Treasure	Ride On ! Ride On in Majesty	
Come, Thou Long-Expected Jesus - B	Jesus, The Very Thought of Thee	Rock of Ages	
Come, Ye Faithful, Raise the Strain	Jesus, Thou Joy of Loving Hearts	Savior, Like a Shepherd Lead Us	
Come, Ye Thankful People, Come	Joy to the World	See Amid the Winter's Snow	
Creator of the Stars of Night	Joyful, Joyful We Adore Thee	Shall We Gather at the River	
Crown Him with Many Crowns	Just As I Am, without One Plea	Silent Night, Holy Night	
Doxology (w/Amen ending - 1 verse only)	Lead on O King Eternal	Songs of Thankfulness and Praise	
Eternal Father, Strong to Save	Let All Mortal Flesh Keep Silence	Spirit Divine, Accept Our Prayers	

APPENDIX C: GENISYS™ VOICES SOUND LIST

Grand Piano	001	Harmonica	023	Muted Trumpet	060
Grand Piano	001A	Tango Accordion	024	French Horn	061
Grand Piano	001B	Ac Guitar Nylon	025	Brass Section	062
Grand Piano	001C	Ac Guitar Steel	026	BrassEnsemb	062A
Grand Piano	001D	El Guitar-Jazz	027	Synth Brass 1	063
Piano Resonance	001E	El Guitar-Clean	028	Synth Brass 2	064
OctavPiano 16-4	001F	El Guitar-Muted	029	Soprano Sax	065
Piano 16	001G	Ovrdrive Guitar	030	Alto Sax	066
Bright Piano	002	Distortd Guitar	031	Tenor Sax	067
Bright Piano-XL	002A	Guitar Harmoncs	032	Baritone Sax	068
Bright Piano-L	002B	Acoustic Bass	033	Oboe	069
Bright Piano-M1	002C	Acoustic BassSub	033A	English Horn	070
Bright Piano-M2	002D	Finger Bass	034	Bassoon	071
El Grand Piano	003	Finger BassSub	034A	Clarinet	072
Honky-Tonk	004	Picked Bass	035	Piccolo	073
El Piano 1	005	Picked BassSub	035A	Flute	074
EPiano Tines-XL	005A	Fretless Bass	036	Recorder	075
Epiano Tines-L	005B	Fretlss BassSub	036A	Pan Flute	076
El piano FM-L	005C	Slap Bass 1	037	Blown Bottle	077
Epiano-FM-Soft	005D	Slap BassSub	037A	Shakuhachi	078
El Piano 2	006	Slap Bass 2	038	Whistle	079
Harpsichord	007	Synth Bass 1	039	Ocarina	080
Harpsichord-XL	007A	Synth Bass 1Sub	039A	Lead1-square wv	081
Harpsichord-L	007B	Synth Bass 2	040	Lead2-saw2th wv	082
Harpsichord-M1	007C	Synth Bass 2Sub	040A	Lead3-Calliope	083
Harpsichord-M2	007D	Violin	041	Lead4-Chiff	084
Harpsichord 8-4	007E	8va Violin	041A	Lead5-Charang	085
Harpsichord16-8	007F	Viola	042	Lead6-Voice	086
Clavinet	008	Cello	043	Lead7-5ths	087
Celesta	009	Cello Ensemble	043A	Lead8-bass+lead	088
Glockenspiel	010	Contrabass	044	Fantasia	089
Chrysoglott	010A	Tremolo Strings	045	Warm	090
Orchestra Bells	010B	Pizzcato Strngs	046	Polysynth	091
Handbells	010C	Orchestral Harp	047	Choir	092
Music Box	011	Timpani	048	Bowed	093
Vibraphone	012	String Ensemb 1	049	Metallic	094
Vibraphone-L	012A	String Ensemb 2	049A	Halo	095
Vibraphone-M	012B	String Ensemb 3	049B	Sweep	096
Vibraharp	012C	String Ensemb 4	049C	Rain	097
Marimba	013	Slow Strings 1	050	Soundtrack	098
Marimba 2	013A	Slow Strings 2	050A	Crystal	099
Xylophone	014	Slow Strings 3	050B	Atmosphere	100
Wood Harp 8	014A	Synth Strings 1	051	Brightness	101
Wood Harp 4	014B	Synth Strings 2	052	Goblins	102
Tubular Bell	015	Choir Aahs	053	Echoes	103
Chimes	015A	Choir-L-S	053A	Sci-Fi	104
Carillon	015B	Choir-M	053B	Sitar	105
Dulcimer	016	Voice Oohs	054	Banjo	106
Drawbar Organ	017	Synth Voice	055	Shamisen	107
Percuss Organ	018	Orchestra Hit	056	Koto	108
Rock Organ	019	Trumpet	057	Kalimba	109
Organ	020	Bugle	057A	Bag Pipe	110
Reed Organ	021	Trombone	058	Fiddle	111
Accordion	022	Tuba	059	Shanai	112

Tinkle Bell	113	4 Engl Octave	148	8 Clarinet	183
Agogo	114	4 Harmonic Flt	149	8 Schalmei	184
Steel Drums	115	4 Violen	150	8 Vox Humana A	185
Woodblock	116	2 Piccolo	151	8 Vox Humana B	186
Taiko Drum	117	1 1/3 Larigot	152	4 Klarine	187
Melodic Tom	118	1 1/7 Septieme	153	4 Clarion	188
Synth Drum	119	1 Fife	154	4 Schalmei	189
Reverse Cymbal	120	Zimbel III	155	2 Zink	190
Fret Noise	121	Cymbale III	156	Organ – MF	191
Breth Noise	122	Mixture IV	157	Organ – F	192
Seashore	123	Grand Mixt IV	158	Organ – FF	193
Bird Tweet	124	Sesquialtera II	159	Organ – FFF	194
Phone Ring	125	Cornet V	160	8-4 Flute	195
Helicopter	126	32 Posaune	161	8-2 Flute	196
Applause	127	16 Posthorn	162	Tibia 8	197
Gunshot	128	16 Posaune	163	Tibia-Vox 8	198
32 Violone	129	16 Tuba	164	Tibia/Vox 8-4	199
16 Diapason	130	16 C Trumpet	165	Tiba 16-8-4	200
16 Diaphone	131	16 Clarinet	166	Bell Tree	201
16 Gamba	132	16 Dulzian	167	Snare Roll	202
16 Bourdon	133	16 Rankett	168	Cymbal Roll	203
16 Quintaden	134	16 Musette	169	Crash Cymbal	204
10 2/3 Quint	135	16 Vox Humana A	170	Thunder	205
8 Principal	136	16 Vox Humana B	171	Cannon	206
8 Engl Diapason	137	8 Festival Trpt	172	Drums- Standard	207
8 Bourdon	138	8 Posthorn	173	Drums- Room	208
8 Quintadena	139	8 Tuba	174	Drums- Power	209
8 Gedackt	140	8 Trumpet	175	Drums- Electric	210
8 Harmonic Flt	141	8 Trompette	176	Drums- TR808	211
8 Violen Celeste	142	8 Cromorne	177	Drums- Brush	212
8 Flute Celeste	143	8 Rankett	178	Drums- Orchstrl	213
8 Dulcn Celeste	144	8 Musette	179	Drums- SFX	214
5 1/3 Quinte	145	8 Krumet	180		
5 1/3 Quint	146	8 Cor Anglais	181		
4 Octave	147	8 French Horn	182		

APPENDIX D: VISUAL KEY RANGE CHART



APPENDIX E: GNU PUBLIC LICENSE INFORMATION

NOTICE:

Portions (but not all) of the software contained within this device are covered by the GNU General Public License shown below. As Such, for a period of three years after the manufacture date, you are entitled to a machine-readable copy of the applicable source code for a fee that covers the distribution costs. You may request a copy by sending that request in writing to:

GENISYS GPL REQUEST
ALLEN ORGAN COMPANY LLC
150 LOCUST ST.
MACUNGIE, PA 18062

Please include your name, address, and phone number.

All portions not covered by the GNU GPL are to be considered Copyright (C) 2008, Allen Organ Company LLC, all rights reserved.

GNU GENERAL PUBLIC LICENSE
Version 2, June 1991
Copyright (C) 1989, 1991 Free Software Foundation, Inc.
51 Franklin St, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

PREAMBLE

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too. When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things. To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it. For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights. We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software. Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations. Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all. The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

1. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you". Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.
2. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program. You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.
3. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:
 - a. You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
 - b. You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
 - c. If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.) These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it. Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program. In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.
4. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:
 - a. Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
 - b. Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

- c. Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.) The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable. If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.
5. You may not copy, modify, sub-license, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sub-license or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
6. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.
7. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.
8. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program. If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances. It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice. This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.
9. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
10. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

11. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

12. Because the program is licensed free of charge, there is no warranty for the program, to the extent permitted by applicable law. Except when otherwise stated in writing the copyright holders and/or other parties provide the program "as is" without warranty of any kind, either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. The entire risk as to the quality and performance of the program is with you. Should the program prove defective, you assume the cost of all necessary servicing, repair or correction.
13. In no event unless required by applicable law or agreed to in writing will any copyright holder, or any other party who may modify and/or redistribute the program as permitted above, be liable to you for damages, including any general, special, incidental or consequential damages arising out of the use or inability to use the program (including but not limited to loss of data or data being rendered inaccurate or losses sustained by you or third parties or a failure of the program to operate with any other programs), even if such holder or other party has been advised of the possibility of such damages.

End of terms and conditions